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Varietal Description of Tetracan Russian Wild-Rye

Origin and breeding

Tetracan tetraploid Russian wild-rye, tested as SC RN 3761, was developed at the Agriculture Canada Research Station in Melfort, Saskatchewan. The seed of 27 plants from eleven sources were treated with colchicine. The surviving seedlings were transferred to a greenhouse for six to eight weeks and then transplanted to the field, providing a total of 894 plants. After chromosome counts were conducted, the mixoploid plants were allowed to interpollinate, after which the seed was harvested. A five plant progeny row was established from each of the mixoploid plants, then 109 tetraploid lines were carried forward using open pollinated plants with a high seed set establishing an 18 plant progeny row. The most fertile plants were allowed to intercross with selected plants in the rows. Seed from 57 of the more fertile of these progeny were used to establish a progeny nursery. Plants were selected for seedling vigor, seed set, seed yield and seed quality to form this variety. The ten highest seed yielding lines were combined to produce the parental material for Tetracan.

Varietal characteristics

Tetracan is similar in appearance to other Russian wild-rye varieties. The leaves and head of Tetracan are larger than those of Swift and seeds are almost twice as large as those of diploid strains.

Performance

Tetracan has the same adaptation as diploid varieties such as Swift, Mayak, and Cabree. It shows an improvement in establishment vigor and has a similar dry matter yield to Swift.

Maintenance of breeder seed
Agriculture Canada Research Station, Swift Current, Saskatchewan.

Canadian distributor
SeCan Association

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Table 1. Yield (kg D.M. /ha) of Tetracan and Swift Russian Wild-rye, Uniform Variety Trials, 1980-84

Location	Years Tested	Tetracan	Swift
Beaverlodge	1980-1982	4130	4080
Indian Head	1980-1983	3053	2730
Winnipeg	1981-1982	5177	5623
Swift Current (Dryland)	1980-1984	2207	2359
Swift Current (Irrigation)	1980-1984	3996	3993

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